



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## A Study On Digitalisation Of Tax System In India

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### Abstract

The tax system in digital era has arisen as a transformative force, reforming the scenery of tax collection, reporting, and administration. Digitalization involves the integration of technology and digital tools to streamline traditionally labour-intensive processes. It enables efficiency gains through automated data entry, real-time validation, and precise calculations, resulting in faster processing times. This not only reduces delays—such as in tax refunds—but also alleviates the administrative burden on taxpayers. Additionally, shifting to digital platforms substantially lowers costs associated with paper-based documentation, physical storage, and manual labour.

The digitalisation of the tax system in India marks a significant shift towards greater efficiency, transparency, and compliance in public finance management. This study explores the evolution, implementation, and impact of digital tax initiatives undertaken by the Indian government, including the introduction of the Goods and Services Tax (GST), e-filing of income tax returns, the Tax Information Network (TIN), and the adoption of faceless assessment systems. Through a combination of policy analysis and secondary data review, the research evaluates the effectiveness of these digital tools in reducing tax evasion, improving taxpayer services, and enhancing revenue collection. It also highlights challenges such as digital literacy, cybersecurity risks, and infrastructural limitations that hinder widespread adoption. The study concludes with recommendations to strengthen the digital tax ecosystem through policy refinement, stakeholder education, and technological upgrades to ensure an inclusive and robust tax administration framework in India.

**Keywords:** Tax, Digitalization, tax administration, e-filing, tax evasion.

### I, INTRODUCTION

In recent years, India has witnessed a significant transformation in its tax administration through the adoption of digital technologies. Conventional tax systems, which rely on paper-based procedures and manual data management, have displayed inefficiency, susceptibility to errors, and difficulties in effective oversight. The digitalization of tax systems offers a chance to tackle these drawbacks and inaugurate a fresh era of efficient, transparent, and responsible tax management and it is a pivotal step towards improving transparency, efficiency, and compliance within the country's fiscal framework. Driven by government initiatives such as *Digital India* and *Goods and Services Tax (GST)*, the integration of technology into tax processes aims to

streamline tax collection, reduce human intervention, and minimize tax evasion. From online filing of returns to the implementation of faceless assessments and real-time data tracking, the shift towards a digital tax system marks a revolutionary change in how taxes are managed and enforced in India. The shift toward digitalization is driven by several key factors, including the pervasive integration of technology, changing expectations of taxpayers, and the need for governments to adapt to the digital economy. As individuals grow accustomed to seamless digital experiences in their daily lives, they increasingly expect the same level of convenience and efficiency from public services, including taxation. In addition, the rise of the digital economy—marked by online transactions and cross-border commerce—demands a modernized tax framework capable of effectively capturing revenue from these new forms of economic activity. This study explores the evolution, impact, challenges, and future prospects of digitalisation in the Indian tax system, shedding light on how it is reshaping the relationship between taxpayers and tax authorities.

## II. LITERATURE REVIEW

Reviewing of Several studies regarding digital taxation mechanisms in India, a few observations are mentioned below,

**Rao (2016)** highlights the shift from manual to electronic systems in tax administration since the late 1990s. The introduction of the *Tax Information Network (TIN)* and *e-filing* platforms represented initial steps toward automation.

**Chattopadhyay (2018)** notes that reforms like the *Goods and Services Tax (GST)* in 2017 catalysed the use of digital platforms for real-time data capture, filing, and reconciliation.

**Kumar & Gupta (2019)** examine how the *GST Network (GSTN)* serves as a comprehensive IT backbone enabling registration, return filing, invoice matching, and payment through a single interface.

**Mukherjee (2020)** observes that despite initial implementation challenges; GST digitalisation led to improved compliance rates and expanded the tax base.

**Efficiency and Transparency: Saxena (2021)** shows that digital filing and assessment systems reduce human interface, thereby minimizing corruption and speeding up processes. Increased.

**Tax Compliance: Sharma & Mehta (2020)** report a noticeable increase in tax returns filed post-digitalisation, attributing this to automated reminders and easy-to-use platforms.

**Data Analytics and Policy Making: Verma (2021)** highlights the government's use of AI and data analytics in identifying tax fraud, estimating revenues, and crafting policy.

**Digital Divide: Jain (2019)** argues that rural and underprivileged populations face difficulties in accessing digital tax platforms due to lack of digital literacy and internet connectivity.

**Systemic and Technical Issues: Bhattacharya (2020)** identifies system outages, complex interfaces, and data mismatches as barriers to smooth digital tax administration.

**Privacy Concerns: Patel (2021)** warns about the risks of data breaches and calls for stringent cybersecurity and data protection laws.

**World Bank Report (2022)** praises India for its ambitious digital tax initiatives but notes that countries like Estonia and Singapore have more user-friendly platforms and seamless integration across government databases.

**OECD (2021)** recommends continued investment in infrastructure and capacity-building for effective implementation.

### III. RESEARCH METHODOLOGY

Recognizing the importance and necessity of digital taxation in India, this study aims to conduct a conceptual analysis of the subject. The research is based entirely on secondary data sources. It seeks to explore both the benefits and challenges associated with the implementation of digital taxation in the country. The secondary data has been gathered from journals, publications, newspapers, articles, and various websites. This collected information has been further analyzed and utilized in the present research.

### IV. DATA ANALYSIS

#### IV.I. Advantages of Digitalization

Key Aspects and Benefits of the Digitalization of the Tax System are mentioned below:

- **Online Filing and Reporting:** Taxpayers can electronically submit tax returns and related documents via digital portals, reducing paperwork and simplifying the process.
- **Automated Data Capture:** Digital tools automatically extract financial data from sources like income statements and receipts, minimizing manual input errors.
- **E-Filing Platforms:** Government-provided platforms allow taxpayers to calculate and submit taxes with features like built-in calculators, form validation, and error checks to ensure accuracy.
- **Real-Time Monitoring:** Tax authorities can track transactions as they occur, enabling quicker identification of discrepancies and potential tax evasion.
- **Electronic Payments:** Secure online payment systems allow taxpayers to pay taxes without visiting offices or banks.
- **Data Analytics and Insights:** Advanced analytics help tax authorities detect patterns and non-compliance, guiding better decision-making and policy development.
- **Reduced Administrative Burden:** Automating tasks like data entry and record-keeping lightens the workload for both taxpayers and tax agencies.
- **Accuracy and Transparency:** Digital systems enhance accuracy in tax calculations and offer greater transparency into tax obligations and payments.
- **Faster Refunds:** Automation enables quicker processing of tax refunds, providing timely returns to eligible taxpayers.
- **Electronic Communication:** Tax authorities can send notifications, reminders, and updates through digital channels.
- **Compliance Tracking:** Automated systems monitor taxpayer compliance, issuing alerts for deadlines or missing information.
- **Easy Access to Information:** Taxpayers can view their tax records and history online, simplifying financial management.

## IV.II Tax Policies in Digital Era

Digitalization presents new opportunities for innovative tax strategies. The integration of data analytics and artificial intelligence (AI) enables tax authorities to analyze vast datasets, identify patterns of tax avoidance, detect anomalies, and implement targeted enforcement measures. Additionally, technology facilitates the development of progressive tax models, enhances the efficiency of tax incentives, and promotes a more equitable distribution of the tax burden. By amalgamating technology into tax policies, governments can attain heightened efficiency, transparency, and precision in generating revenue while adapting to the digital era. Multiple pivotal aspects define technology-driven tax policies:

1. **Digital Tax Administration:** The integration of advanced software platforms and e-filing systems streamlines tax collection, reduces paperwork, and minimizes human error. This enables faster processing, real-time tracking, and improved taxpayer services.
2. **Data Analytics and AI:** Governments increasingly rely on big data analytics and artificial intelligence to identify tax evasion patterns, assess risks, and enhance compliance. These technologies help in proactive auditing and tailored policy development.
3. **Blockchain and Distributed Ledger Technology:** These systems offer tamper-proof records of financial transactions, enhancing the transparency and trustworthiness of tax reporting and reducing opportunities for fraud.
4. **E-invoicing and Real-Time Reporting:** Mandating electronic invoicing and real-time transaction reporting enables tax authorities to have immediate visibility into business operations, improving VAT/GST compliance and reducing the tax gap.
5. **Digital Services Tax (DST):** As economies digitize, governments are introducing DSTs to ensure fair taxation of multinational tech giants that generate revenues within a jurisdiction without a physical presence.
6. **Cross-Border Data Sharing and Collaboration:** International cooperation in tax matters, supported by digital platforms (like the OECD's Common Reporting Standard), facilitates information exchange and coordinated efforts against tax base erosion.
7. **Automated Compliance Tools for Taxpayers:** From pre-filled tax returns to smart calculators, technology simplifies compliance, reducing the burden on individuals and businesses while increasing voluntary adherence.
8. **Cybersecurity and Data Protection:** As digital systems become more integral, safeguarding sensitive tax data from cyber threats is crucial. Robust security protocols must accompany any tech-driven tax reform.

## V. CHALLENGES AND CONSIDERATION

Even though the digital transformation of tax systems presents a multitude of benefits, it also introduces various challenges and factors that governments and stakeholders must address to guarantee a successful transition. A few of these challenges comprise:

1. **Data Security and Privacy Concerns:** As tax systems become increasingly digitized, ensuring the security and confidentiality of sensitive taxpayer data is paramount. Cyberattacks, data breaches, and misuse of personal information can erode public trust and pose significant legal and financial risks.
2. **Digital Infrastructure Gaps:** Not all regions or countries have the same level of digital infrastructure. In areas with limited internet connectivity or outdated technological systems, implementing advanced digital tax solutions may be difficult or delayed.

3. **Compliance and Digital Literacy:** Taxpayers, especially small businesses and individuals, may struggle to adapt to new digital platforms due to a lack of technical skills or understanding of new compliance requirements. This can lead to lower compliance rates and increased resistance to change.
4. **Integration with Legacy Systems:** Many tax authorities rely on older legacy systems that may not be easily compatible with modern digital platforms. Migrating data and ensuring interoperability can be complex, time-consuming, and costly.
5. **Regulatory and Legal Barriers:** Updating legislation to support digital tax processes is essential but often lags behind technological innovation. Clear legal frameworks must be established to govern digital transactions, electronic records, and automated decision-making.
6. **Change Management and Stakeholder Engagement:** Successfully transitioning to a digital tax system requires buy-in from multiple stakeholders, including government agencies, taxpayers, tax professionals, and software providers. Effective communication, training, and support are critical to managing change and fostering cooperation.
7. **Cost and Resource Allocation:** The upfront investment required for digital transformation can be significant. Governments must carefully plan and allocate resources to ensure long-term sustainability and value for money.

## VI. DIGITAL TAX REFORMS IN INDIA

India's adoption of the Goods and Services Tax (GST) marks a significant milestone in large-scale digital tax reform. By replacing a convoluted array of indirect taxes with a single, unified system, GST has streamlined the country's tax structure. Central to this transformation is the GST Network (GSTN), a powerful digital platform that facilitates efficient tax registration, return filing, and payments. This shift to a digital framework has improved tax compliance, minimized evasion, and enhanced transparency across the taxation system.

India has undertaken significant digital reforms to modernize its tax system, improve compliance, and enhance transparency. Key initiatives include:

### 1. Goods and Services Tax (GST)

The introduction of GST marked a major shift from a complex system of indirect taxes to a unified national tax framework. Key digital features include:

- **Online Filing:** GST returns are filed through the online GST portal, where businesses submit transaction details, invoices, and related data.
- **Real-Time Data Matching:** The GSTN (Goods and Services Tax Network) matches supplier and buyer invoices in real time to minimize discrepancies and prevent fraud.
- **E-Way Bill:** An electronically generated waybill is required for the interstate movement of goods, promoting transparency and reducing tax evasion.

### 2. Income Tax Filing and Digital Identity

- **Aadhaar-Based Identity:** Aadhaar provides a unique digital identity linked to multiple services, including tax filing, helping to streamline authentication and reduce fraud.
- **E-Filing Portal:** Taxpayers can file income tax returns online, enabling faster processing, easy access, and quicker refunds.



### 3. Digital Payments and Cashless Transactions

- **Unified Payments Interface (UPI):** UPI has revolutionized digital payments, allowing instant money transfers and payments directly from bank accounts via mobile devices.
- **Payment Platforms:** Mobile wallets and digital banking apps simplify online tax payments and financial transactions.

### 4. Real-Time Tax Analytics and Compliance

- **Project Insight:** This analytics-driven platform by the Income Tax Department monitors large volumes of financial data to detect tax evasion and non-compliance patterns.

### 5. Digital Verification and Authentication

- **Digital Signature Certificates (DSCs):** Used to electronically sign tax documents, DSCs ensure secure and authentic filings.

### 6. Centralized Reporting and Communication

- **Electronic Communication:** The government provides updates, notifications, and reminders to taxpayers via digital channels, improving accessibility and compliance.

### 7. Mobile Apps and Taxpayer Portals

- **MyGov Taxpayer Portal:** This platform offers tools, resources, and information to assist taxpayers in understanding and fulfilling their obligations.

These digital initiatives reflect the Indian government's commitment to transforming tax administration. By leveraging technology, the system becomes more transparent, efficient, and resistant to fraud—benefiting both taxpayers and the government alike.

## VII. FUTURE OUTLOOK

### 1. Continued Expansion of Digital Infrastructure

- The government is expected to further enhance its digital infrastructure, especially with the integration of AI, machine learning, and blockchain in tax administration.
- Projects like the **faceless assessment scheme**, **GSTN (Goods and Services Tax Network)** enhancements, and **automation of income tax filings** are likely to evolve and expand.

### 2. Improved Tax Compliance

- With increasing use of analytics and e-verification tools, digitalisation will drive **higher voluntary compliance** and reduce tax evasion.
- Pre-filled tax returns, e-invoicing, and real-time reporting under GST are expected to make tax filing more seamless and transparent.

### 3. Integration of Systems

- Interlinking databases such as PAN, Aadhaar, GSTN, banks, and customs will allow better tracking and assessment.
- A unified taxpayer interface for all types of taxes (direct and indirect) may be developed.

### 4. User-Centric Innovations

- Taxpayers will benefit from **user-friendly platforms**, mobile apps, chatbots, and online support, making compliance simpler for individuals and businesses.

- Tax literacy and digital awareness programs will likely become a focus to help rural and small taxpayers.

## 5. Use of Artificial Intelligence and Data Analytics

- AI and data analytics will play a larger role in identifying fraud, optimizing collection, and customizing services for taxpayers.
- Predictive analytics may help in forecasting revenues and better policy planning.

## 6. Policy and Regulatory Reforms

- The digital tax system will likely be backed by continuous reforms aimed at **simplification, transparency, and ease of doing business**.
- India's alignment with international digital tax norms (like OECD's BEPS framework) is also expected to impact domestic tax policies.

## 7. Challenges and Risks

- Issues like **data privacy, cybersecurity, and digital divide** (urban-rural gap) need to be addressed to ensure inclusive digitalisation.
- Resistance to change among certain taxpayer segments and bureaucratic inertia may slow down full adoption.

## VIII. CONCLUSION OF THE STUDY

India's digitalisation of the tax system is on a progressive path, with significant transformations already underway. With sustained government initiatives, technological advancement, and increased taxpayer participation, the future holds the promise of a more transparent, efficient, and taxpayer-friendly tax environment.

The digitization of tax systems represents a transformative shift in the field of taxation, paving the way for greater efficiency, transparency, and adaptability. By streamlining processes, digital tools reduce the administrative burden on both taxpayers and tax authorities. Features like automated data entry, real-time validation, and precise calculations accelerate tax filing, minimize errors, and shorten refund timelines. Reduced reliance on paperwork also leads to cost savings and better use of resources.

Digital tax platforms also enhance compliance and accountability. Intuitive interfaces and instant access to tax information empower taxpayers to fulfil their obligations accurately, fostering trust in the tax system and strengthening collaboration between citizens and authorities. Additionally, the data-centric nature of digital systems provides tax agencies with valuable insights, enabling them to detect compliance trends, target enforcement effectively, and allocate resources more strategically. Real-time data sharing between financial institutions and tax authorities also plays a critical role in combating tax evasion.

Ultimately, digitization is more than a technological upgrade—it redefines how governments manage compliance and revenue. By leveraging technology while addressing its challenges inclusively, nations can build tax systems that are not only more efficient and transparent but also better aligned with the demands of the digital age. Embracing this shift is essential for creating a fairer and more forward-looking approach to taxation.

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